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Montana Department of Health and Environmental Sciences
MONTHLY ACTIVITIES REPORT OF THE AIR QUALITY BUREAU



July 1976

STATE DOCUMENTS

FEB 2'77

1. Highlights

Work on NSPS/NESHAPS rule amendments.

Inspection of Sumitomo Chemical's aluminum plant in Japan.

Review and partial certification of Anaconda Aluminum tax certification application.

2. Ambient Air Quality Network

Standards Exceeded:

- Ozone - 27th & Montana, Billings, 9 viol. fed. prim. std.
- TSP* - Morton Residence, Big Horn Co., 1 viol. fed. sec. std.
- Fire Station #1, Great Falls, 1 viol. fed. sec. std.
- SO₂ - East stack, East Helena, 1 viol. MT 1-hr. std.
- Microwave, East Helena, 10 viol. MT 1-hr. std.
- Laurel E. Cenex, Billings, 15 viol. MT 1-hr. std.
- Laurel Water Pit, Laurel, 3 viol. MT 1-hr. std.
- Post Office, Anaconda, 14 viol. MT 1-hr. std.
- Mill Creek, Anaconda, 1 viol. MT 1-hr. std.
- Hiway Junction, Anaconda, 7 viol. MT 1-hr. std.
- C-Hill, Anaconda, 19 viol. MT 1-hr. std.
- C-Hill, Anaconda, 2 viol. MT 24-hr. std.
- C-Hill, Anaconda, 2 viol. Fed. 24-hr. std.
- ASARCO, Inc., E. Helena, 1 viol. Fed. 24-hr. std.
- Post Office, Anaconda, 1 viol. Fed. 3-hr. std.
- C-Hill, Anaconda, 3 viol. Fed. 3-hr. std.
- ASARCO, Inc., E. Helena, 1 viol. Fed. 3-hr. std.

Air Stagnation Advisories:

No Air Stagnation Advisories issued during the month of July.

Laboratory Status:

Total determinations for the month - 204
Total samples for the month - 204

Developments:

Normal repair, calibration and maintenance completed throughout the state.

3. Permits and Tax Credits

Construction Permits:

Applications:

R. J. Studer & Sons Co., gravel crushing plant, Rosebud County
R. J. Studer & Sons Co., asphalt plant, Rosebud County
Ideal Cement, Portland cement storage silos, Trident, Montana
Hilde-Maronick Joint Venture, gravel crushing plant, Toole County
HilMar Asphalt, asphalt plant, Toole County
Hilde Construction Co., Inc., gravel crushing plant, Fergus County
Gus Albert, asphalt plant, Blaine County
Gus Albert, gravel crushing plant, Blaine County
Hilde Construction Co., Inc., gravel crushing plant, Pondera County

Approved:

Earth Builders, Inc., asphalt plant, Custer County
Earth Builders, Inc., asphalt plant, Roosevelt County
Anaconda Aluminum Co., installation of Japanese aluminum smelting
technology, Columbia Falls, Montana
Hoerner Waldorf Corp., lime and oxidation system, lime kiln extension,
brown stock washer hood emissions, Missoula, Montana
R. J. Studer & Sons Co., gravel crushing plant and asphalt plant, Rosebud Co.
R. J. Studer & Sons Co., gravel crushing plant, Rosebud County
R. J. Studer & Sons Co., asphalt plant, Rosebud County
Ideal Cement, Portland cement storage silos, Trident, Montana
Hilde-Maronick Joint Venture, gravel crushing plant, Toole County
HilMar Asphalt, asphalt plant, Toole County

Tax Credits:

Montana Power Company, Butte, \$19,000,000
Puget Sound Power & Light, Butte, \$19,000,000
Anaconda Aluminum, Columbia Falls, primary system, foam scrubbers, casting
filters, material handling system controls, \$4,801,522

4. Variance Status

Current Variances:

The particulate emission report required by the particulate emission variance
extension granted to the Anaconda Company in March, 1976, is being prepared.
It appears that it will not be ready for presentation to the Board on August 6.

New or Renewed Variances:

None

5. Enforcement Actions

Citations:

None

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Notices of Violation:

None

Order for Corrective Action:

ASARCO, Inc., East Helena, zinc fuming plant

Court Actions:

Anna Madsen, open burning, Havre, Hill County Attorney dropped the nine open burning charges he had filed
Clayton Berg, Helena, open burning. Berg has until 8/18/76 to enter a plea.

6. Tepee Burner and Open Burning

Tepee Burner Status:

No. at Start	41
New Starts	0
Shutdowns	0
No. at End	41

Open Burning Burning Permits:

Kalispell	60	Sanders Co.	60
Cascade Co.	10	Yellowstone Co.	31
Lake Co.	8	Rest of State	362
Missoula Co.	5	Total Permits	527

7. Source Tests Performed

Agency Source Tests:

None

Non-Agency Source Tests:

None

8. Field Investigations

Superior Building Supply, Col. Falls, tepee burner, opacity observation
Plum Creek #1 and #3 dryer, Col. Falls, opacity observation
Kal-Mont Lumber and Plywood, Kalispell, tepee burner, opacity observation
Montana Lumber and Plywood, Evergreen, tepee burner, opacity observation

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C & C Flywood, Evergreen, dryer/teepee burner, opacity observation
Pack & Co., Kalispell, opacity observation
American Asphalt, Kalispell, opacity observation
Zook Brothers, Libby, Kalispell, opacity observation
Kennedy Stevens, Eureka, opacity observation
American Timber, Olney, opacity observation
Dugdale Construction Co., Helena, plant inspection
Brand S Lumber, teepee burner, plant inspection
Willow Creek Lumber, teepee burner, plant inspection
Burkland Studs, Livingston, teepee burner, documented
Park Lumber, Livingston, teepee burner, documented
Yellowstone Pines, Belgrade, teepee burner, documented
Powerline, Broadview, Grassrange, Glengary
Lewistown street patching operation, inspection
3 highway projects, inspection
Sumitomo Chemical, Nagoya, Japan, aluminum plant
Sumitomo Chemical, Toyana, Japan, aluminum plant

9. Complaints

Belton Livestock, Coram, odor, no cause for action
Flathead Lake excursion boat docking, Somers, emission from boat idling, no cause for action
Shooting Club, Kalispell, noise from shooting, suggested relocation of range
Silas Mast pig farm, Creston, odor, corrected
Ravalli Co. fairgrounds, open burning, corrected
Han Haumberger sawmill, Nissler, blowing sawdust, will place a dust fall nearby to monitor problem
Phillips Petroleum, Great Falls, odor
Brand S Lumber, Livingston, emissions, corrected
Brand S Lumber, Livingston, emissions, noise, follow-up being made
Gilman Construction, Butte, dust from batch plant, follow-up being made

10. Data Processing Services

Ambient Data Summary:

Monthly summary of June air quality data attached.

Emissions Inventory Status:

An update was made to the master file for Missoula County Health Department.

Prevention of Significant Deterioration:

Comments that have been received on draft rule have been sent to Northern Plains Resource Council.

Worked up draft policy statement on interstate cooperation for prevention of significant deterioration.

Modeling:

Copy of modeling work on Colstrip Units 3 and 4 and the stack test results for Unit 1 sent to EPA.

Finished modeling for CO on First Avenue North Bridge in Great Falls, Montana.

Started reviewing HIWAY and APRAC diffusion models as to applicability to Great Falls and as to data required to run the models.

Started contacting sources of meteorological data for the modeling purposes. A summary of known data sources was compiled.

Reviewed and commented on baseline study outline for Circle West prepared by Energy Planning Division.

11. Environmental Impact Statements

Agency Impact Determination:

None

Other Agency EIS's Reviewed:

None

12. Status of Studies, Contracts, and Reports

Quality Assurance Manuals, 95% complete

U.S. Plywood particulate tests, 40% complete

Health Study Phase I - will begin shortly

Health Study Phase II - working on the cost proposal

State Area Source Inventory, PEDCo Contract, Begin in August

13. Schools and Training

Federal Highway Administration Air Quality Monitoring Demonstration Project,
July 20-22, 1976

14. Public Hearings and Meetings

Public Hearings:

None

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Meetings Attended:

City Officials, Lewistown
Highway Dept. Env. Impact Group, Helena
APCA Convention, Portland
Hoerner Waldorf, Helena
Sumitomo Chemical personnel, Japan
County Commissioners, Flathead & Lake Counties, open burning
Stauffer Chemical Co., Ramsay
Northern Cheyenne redesignation, Helena
Prevention of Significant Deterioration topic, "Missoulian"
EPA, diffusion modeling
Legal Division, PSD, Helena
ASARCO, Inc., Helena
NPRC, Poplar River, Helena
DNR & Water Quality, study plan for Circle West, Helena
Anaconda Aluminum Company, Helena

Intra-Staff Meetings:

Source inventory updating, Helena
Staff meetings, Helena
Legal Division, tax classifications, Helena
Meteorological data, AQB staff, Helena
Legal Division, use of variance filing fees, Helena

15. Public Information Requests

General information - 4
Air Quality Rules - 7
Clean Air Act - 4

16. Fiscal Status

Grants Received:

None

Monthly Expenditures:

Program	Budget	Expenditures		Funds Remaining
		July	YTD	
0630	443,090	14,309	14,309	428,781
0631	74,400	---	---	74,400
0633	75,300	4,150	4,150	71,150

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

MONTHLY SUMMARY OF AIR QUALITY DATA

JUNE 1976

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Pollutants: Miscellaneous Continuous Data Units: Parts Per Million

AQCP	ANPA Site Location	HIGH READING			ARITHMETIC AVER.		Comments
		Current Month	Year-to-Date	Running Year	6-yr. average	% of State, of 1974	
140	Carbon Monoxide						
	11th & S. 27th Billings	1.50	8.10	9.00	0.425	6	
140	Hydrocarbons						
	27th & Montana Billings	7.50	27.00	26.50	1.724	6	
140	Hydrocarbons						
	11th & S. 27th Billings	7.80	7.80	30.00	2.049	6	No longer running
140	Hydrocarbons						
	27th & Montana Billings	4.80	4.80	4.80	1.925	2	
143	BN						
	Colstrip	2.00	2.00	2.10	1.618	6	
143	Meth. Hydrocarbons						
	BN	1.70	1.90	1.90	1.681	6	
143	Non-Meth. Hydrocarbons						
	BN	0.40	0.40	0.40	0.003	6	1 viol. fed. prim. std.
140	Nitrogen Dioxide						
	27th & Montana Billings	0.06	0.10	0.10	0.034	6	
140	Ozone						
	27th & Montana Billings	0.08	0.09	0.09	0.021	6	1 viol. fed. prim. std.
143	BN						
	Colstrip	0.03	0.09	0.09	0.052	6	

Pollutants: Sulfur Dioxide Units: Parts Per Million

AQCP	ANPA Site Location	HIGH READING			ARITHMETIC AVER.		Comments
		Current Month	Year-to-Date	Running Year	6-yr. average	% of State, of 1974	
142	Faye Stack	0.25	0.39	0.39	0.012	6	1 viol. MT 1-hr. std.
	East Helena	1.08	1.08	1.08	0.013	6	6 viol. MT 1-hr. std.
142	Microwave						
	East Helena	0.50	0.58	1.68	0.007	6	2 viol. MT 1-hr. std.
142	Saddle Mountain						
	E. Helena	2.54	2.54	2.54	0.016	6	28 viol. MT 1-hr. std.
142	Will						
	Anaconda	0.77	0.78	0.78	0.019	6	2 viol. MT 1-hr. std.
142	Highway Junction						
	Anaconda	0.51	0.79	0.83	0.015	6	8 viol. MT 1-hr. std.
142	MT Cr. RR Cross						
	Anaconda	0.38	0.65	0.65	0.005	6	2 viol. MT 1-hr. std.
142	Post Office						
	Anaconda	0.40	0.40	0.40	0.006	6	1 viol. MT 1-hr. std.
142	Pump House						
	Anaconda	0.09	0.15	0.15	0.006	6	
142	27th & Montana						
	Billings	0.50	0.50	0.50	0.021	3	12 viol. MT 1-hr. std.
142	Laurel & Cenex						
	Billings	0.35	0.35	0.35	0.020	1	6 viol. MT 1-hr. std.
142	Laurel Water Pl						
	Laurel	0.0	0.02	0.02	0.009	6	
142	BN						
	Colstrip						

Pollutants: Miscellaneous Indicators

Units

AQCP	ANPA Site Location	HIGH READING			ARITHMETIC AVER.		Comments
		Current Month	Year-to-Date	Running Year	6-yr. average	% of State, of 1974	
141	DUSTFALL - Tons/square mile						
	Mountain States	19.60	28.16	28.16	17.17	6	
141	Cascade Co.						
	Fire Station #1	15.10	37.73	37.73	20.26	6	
142	FLUORIDE PAPERS						
	micrograms/sq. m./30 days						
142	Durant Canyon						
	Powell Co.						No longer running
142	Lahmans						No longer running
	Powell Co.						No longer running
142	N Ac Highway						No longer running
	Powell Co.						No longer running
142	Ramsay West						
	S. Bow Co.	0.660	1.750	1.750	1.170	6	
142	ESE of Stauffer						
	S. Bow Co.	5.420	7.870	7.870	4.508	6	
143	BN						
	Rosebud Co.						No longer running
143	McRae						No longer running
	Rosebud Co.						No longer running
144	Dohlborn's Mt. Box						
	Flathead Co.	1.410	1.410	1.410	.81	6	
144	Toakettle Mtn. #2						
	Flathead Co.	19.700	19.700	19.700	3.55	6	No longer running
144	Toakettle Mtn. #1						
	Flathead Co.						No longer running
144	Toakettle Mtn. #2						
	Flathead Co.						No longer running

Pollutants: Miscellaneous Indicators

Units

AQCP	ANPA Site Location	HIGH READING			ARITHMETIC AVER.		Comments
		Current Month	Year-to-Date	Running Year	6-yr. average	% of State, of 1974	
144	Glacier Park #1	.460	0.580	0.580	.324	5	
	Glac. Nat. Pk.	.470	0.580	0.580	.358	5	
142	FLUORIDE PLATES						
	micrograms/sq. m./30 days						
142	Durant Canyon						No longer running
	Over Lodge Co.						No longer running
142	N Ac Highway						No longer running
	Powell Co.						No longer running
142	BN on Hill						No longer running
	Powell Co.						No longer running
142	Ramsay West						
	S. Bow Co.	0.920	2.170	2.170	1.380	5	
142	ESE of Stauffer						
	S. Bow Co.	5.800	10.920	10.920	5.290	5	
143	BN						
	Rosebud Co.	0	0	0	0	6	No longer running
144	McRae						
	Rosebud Co.	30.000	30.000	30.000	9.092	6	
144	Toakettle #1						
	Flathead Co.						No longer running
144	Toakettle #2						
	Flathead Co.	18.670	18.670	18.670	18.670	1	
144	Toakettle #4						
	Flathead Co.	8.600	8.600	8.600	5.12	5	
144	Anaconda South						
	Flathead Co.	.720	.720	.720	.427	6	
144	Glacier Park #1						
	Glac. Nat. Pk.						

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MONTHLY SUMMARY OF AIR QUALITY DATA

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Pollutant: Miscellaneous Indicators

Units:

AREA		HIGH READING			ARITHMETIC AVER.		Comments
ACQ#	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Months of Data	
144	Glacier Park #2 Glac. Nat. Pk.	.720	.810	.810	.697	6	
SULFATION RATE microgm/m ³ /100 sq. mi./day							
140	378 mi. NE Coeur Yellowstone Co	1.940	4.570	4.570	7.342	5	
	E of Laurel Yellowstone Co	0.810	3.620	3.620	1.402	6	
	Hi-Ball Trucking Yellowstone Co	1.410	1.410	1.410	0.816	5	
141	Stock Car Track Cascade Co.						Not run in June
	Phillips Ref. NI Cascade Co.	0.117	0.333	0.353	0.127	5	
	Phillips Ref. E Cascade Co.	0.109	0.399	0.399	0.126	5	
142	Microwave Tower Jefferson Co.	0.300	.400	0.680	0.273	6	
	Hwy 48 Junction Deer Lodge Co.	0.300	1.100	1.100	0.522	5	
	Hill Cr Tri RR Co Deer Lodge Co.						No longer running
	Anaconda Airpore Deer Lodge Co.						No longer running
	McGlenns Jefferson Co.						No longer running
	Kieffner Rd Jefferson Co.						No longer running
143	BN Colstrip						Not run in June

Pollutant:

Units:

AREA		HIGH READING			ARITHMETIC AVER.		Comments
ACQ#	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Months of Data	
143	McKae Colstrip	0	0	0.040	0	5	
144	Cut Bank #1 Glacier Co. Cut Bank #2 Glacier Co.						No longer running No longer running

Pollutant: Total Suspended Particulate

Units: Micrograms/cubic meter

AREA		HIGH READING			GEOMETRIC AVER.		Comments
ACQ#	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Months of Data	
140	Norton Residence Highmont County	178	208	255	50.5	6	2 violations fed secondary std.
	Warren Ranch Highmont County	25	85	85	21.2	6	
	Lockwood School Billings	43	141	141	39.7	6	
	KOH Station Billings	44	106	106	29.7	6	
	City Hall Billings	66	200	200	65.1	6	
	Billings Grand Ave. Sch.	125	199	199	53.4	6	
	Laurel Jr.-Hi. Sch. Billings	45	108	108	30.5	6	
	Yellowstone Co 28th St. West	5398	5398	5398	210.8	1	5 violations fed secondary std.
141	Hospital Roof Coeur d'Alene	50	124	218	34.7	6	
	Great Falls Fire Station #1	99	185	185	61.2	6	
142	Fire Station #1 Great Falls	58	202	202	28.2	6	
	Fire Station #1 S. Row County	70	173	173	57.3	6	
	Row Gen. Hosp. Butte	97	285	368	95.4	6	
	McKee Butte	36	306	306	49.8	6	
	Wheeler Residence S. Row County	24	70	54	15.3	6	

Pollutant: Total Suspended Particulate

Units: Micrograms/cubic meter

AREA		HIGH READING			GEOMETRIC AVER.		Comments
ACQ#	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Months of Data	
142	Hwy Junction Deer Lodge Co.	55	110	110	15.1	6	
	McKinley Res. Granite Co.	82	147	147	18.1	6	
	Microwave Jefferson Co.	32	84	84	18.2	6	
	212 Pacific St. L. & C. Co.	93	171	231	60.5	6	
143	Lane Deer Roosebud Co.	37	37	37	7.8	4	
	McKae Roosebud Co.	104	104	129	25.3	6	
	McKae Roosebud Co.	29	86	86	15.0	6	
	Lindsay (107312) Dawson County	28	60	60	13.6	6	
	Peck McCone County	15	166	166	19.6	6	
	Arden Pow. Riv. Co.	35	48	48	14.3	6	
	Power Hemlock Co.	29	173	173	21.6	6	
	Littlefield Hill Miles City	27	87	87	20.2	6	
	Gravel Daniels Co.	22	98	98	23.9	5	
	Glendive Dawson County	46	130	130	34.0	6	
	Lindsay (107349) Dawson County	13	38	38	11.8	6	

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Units: Microns/cubic meter

Pollutant:

Figure 6

AREA		RICH FINDINGS			GEOMETRIC AVERAGE		Comments
ACRES	Site Location	Change in Biomass	Year-to- Date	Harvest Yield	Year-to- Date	Exp. 1 Exp. 2 Exp. 3	
144	High School Columbia Falls	87	254	254	61.6	6	Equipment broken down
	Dahlben Res. Kalispell	40	53	68	13.7	6	
	Downard Res. Kalispell	94	234	234	86.9	6	
	Swordrup Libby						
	Courthouse Missoula Co.	107	386	386	78.7	6	
	Johnson Bell Pk. Missoula Co.	85	176	176	34.3	6	
	Frenchtown Missoula Co.	71	217	217	30.3	6	

[illegible]

Pollutant:

Unit 5 2.00

Pollutant:

Una 2.3.1

AREA		RICE READING		ADDITIONAL INFO.			
ACR	Site location	Collected Month	Trans- location Date	Collected Year	Trans- location Date	Spec. of seed	Comments

AREA		RICE READING			ADDITIONAL INFO.		
Acct.	Site Location	One - mile Depth	Three - miles	Bottom Type	Total - miles	Depth in fathoms	Comments

